

BRUCE RHYNE and JANICE RHYNE,

Plaintiffs,

vs.

UNITED STATES STEEL
CORPORATION, *et al.*,

Defendants.

INTRODUCTION

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1. Dr. Herrick's Opinion Regarding Plaintiff's Exposure to Benzene From Use of Kutzit at Home is Based Upon Evidence and Not Speculation.

Savogran incorrectly claims that certain bases for Dr. Herrick's opinion Mr. Rhyne's Kutzit benzene exposures are speculation because they are not supported by evidence. Specifically, Savogran claims that there is no factual support for the conclusion that (1) Mr. Rhyne used the Kutzit one in three times that he worked on cars at his home, (2) Mr. Rhyne used Kutzit once per week for one hour at a time when working at Setzer's Buick and (3) Mr. Rhyne used the version of Kutzit containing benzene as an ingredient through the end of 1974. See, Doc. 204 pp. 6-7.

In making these arguments, Savogran leads the court to believe that Dr. Herrick relied solely on Mr. Rhyne's deposition testimony in reaching his opinions, despite the fact that Dr. Herrick testified that he also considered and relied upon Mr. Petty's report. In fact, the Joint Motion to Exclude Dr. Herrick (Doc. 201) directly argued that Dr. Herrick did in fact use Mr. Petty's report as a starting point for his analysis. Savogran cut and pasted large swaths of the Joint Motion to Exclude Dr. Herrick into its own memorandum of law. Savogran's decision to exclude facts that directly contradict this argument was curious, to say the least.

A. Mr. Rhyne's use of Kutzit one in every three times he worked on cars at home is a conservative estimate supported by fact and therefore not speculation.

Dr. Herrick stated in his report that he "conservatively estimated that Mr. Rhyne used Kutzit one-third of the times he worked on the family cars." See Herrick report, Doc. 201-2, at 31. Safety-Kleen claims that Mr. Rhyne did not provide this detail in his deposition. Yet, Mr. Rhyne's deposition is not the only source of information on Mr. Rhyne's use of Kutzit that Dr. Herrick relied upon.

As the Joint Motion to Exclude Dr. Herrick goes to lengths to establish, Dr. Herrick had the benefit of Mr. Petty's report since the start of Dr. Herrick's work in this case. Dr. Petty's report contains the notes of his interview with Mr. Rhyne.¹ Industrial hygienists routinely rely upon interviews to perform their work. See, Herrick Decl. ¶ 37, Ex. 1. Mr. Petty interviewed Mr. Rhyne on October 5 and 6, 2017 to obtain information regarding his Kutzit use that the defense did not solicit in Mr. Rhyne's deposition. Mr. Petty's interview notes appear at the appendix to his report. See, Doc. 201-13 at p. 382. Those notes reflect that Mr. Rhyne told Mr. Petty that he used the Kutzit on average twice per month when working on cars at home. See, Doc. 201-13, at p. 382. Mr. Rhyne's testimony at trial will be consistent with his interview statements.

October 5 and 6, 2017 Telephone Log – Interview of Mr. Bruce C. Rhyne

Table 3: Summary of Mr. Rhyne's Exposure History and Other Information While Using Kutzit Paint Remover – 1970s to 1990s

Location/ Activity	Container Size / Squirt Can Used	Exposures and Consumption					Dermal Exposures			
		Timeframe / Job	# Events/Day or Week	Amount Used/Event	Time/Event (minutes)	Distance Away (Inches)	Part of Body Wet	% Area Wet	% Time Wet	Post Appl. (Yes, wet to dry; no)
General	Container contained ~18 to ~19 oz. (Interview).									
At Home (6: 316)	Container contained ~18 to ~19 oz. (Interview).	Age 14 through age 17 (~4 years) he used this product at home on his father's and his cars (Interview).	Used the product on average ~2x/mo. (~1x/mo. for his father's cars and ~1x/mo. for his cars) over the course of this four year timeframe (Interview).	~1 can/6 mo. (Interview).	~1 hr./event (Interview).	~12" to ~18" (Interview)	2 Hands (Interview)	100%	100%	The product stayed on his hands until it evaporated; >15 minutes (Interview).

Mr. Rhyne testified that, before he joined Duke in 1976, he worked on cars sometimes after his dad got off of work during the week and sometimes during the weekend. B. Rhyne Dep., Ex. 2, pp. 329:20-330:15. If one assumes that Mr. Rhyne worked on cars one weekday and one weekend day, that equates to at least 8 times per month (two days per week x four weeks per month = 8 days working on cars per month). Mr. Rhyne said he used Kutzit twice per month,

¹ Although Mr. Petty is no longer an expert in this case, Dr. Herrick may still use his interview with Mr. Rhyne as a basis for his data assumptions regarding the amount of time he used Kutzit at home. See 29 C.F.R. § 18.703 ("The facts or data in the particular case upon which an expert bases an opinion or inference may be those perceived by or made known to the expert at or before the hearing. If of a type reasonably relied upon by experts in the particular field in forming opinions or inferences upon the subject, the facts or data need not be admissible into evidence.")

which is once every four times he worked on a car (8 days per month working on cars divided by two days per month using Kutzit = 1 in 4 times). If Mr. Rhyne only worked on cars one day per week, for a total of four times per month, and used Kutzit twice per month, that equates to using Kutzit one in every two times he worked on a car at home. Thus, Dr. Herrick's assumption that Mr. Rhyne used Kutzit one in every three times he worked on a car at home is supported by fact. Dr. Herrick also properly used his professional judgment to arrive at this conclusion. See, Herrick's Dep., Ex. 4, at 348:20-349:16

Dr. Herrick's professional opinion and decision to estimate that Mr. Rhyne worked on gaskets a third of the time he worked on the family cars was clearly a conservative underestimate of the amount of kutzit that Mr. Rhyne used based upon the evidence above. Under Defendants' logic, Dr. Herricks testimony should be excluded because Mr. Rhyne's Kutzit exposures from home use of the product should have been calculated to be *higher* based upon Mr. Rhyne's testimony that he never used another gasket remover and used Kutzit at least twice a month.

B. Mr. Rhyne's deposition testimony and interview provide evidence that he used the Kutzit for one hour at a time at Setzer's.

Mr. Rhyne testified that he used the Kutzit one hour at a time in order to remove gaskets from cars. Specifically, he stated that he used Kutzit to remove two gaskets at a time, and that it took him 30 minutes to apply the Kutzit to each gasket (two gaskets times 30 minutes per gasket = 60 minutes). See, Herrick report, Doc. 201-2, at 31. ("He would use a brush to apply the Kutzit on the gasket, which would take 30 minutes to apply on both gaskets of the valve covers."). The relevant portion of Mr. Rhyne's testimony was

Q. Okay. Then how long to dip the brush in and brush it around the gasket you wanted to remove?

A. Probably -- probably at least -- both gaskets, it would probably take 30 minutes maybe, it wasn't long.

Q. 30 minutes?

A. 30 minutes on both of them, I'd say.

Q. So you were dipping your brush in and putting it on a gasket, and then another gasket. And that took a half an hour?

A. Probably, yeah. I'd dip it and then do a little bit, dip it and do a little bit, dip it and do a little bit, on both -- on both gaskets -- or both valve covers I'd have there.

...

Q. How long did the scraping take?

A. Scraping was a little bit longer because they were on there, that I can remember. It might -- sometimes it might take me -- it might take me to get -- had to make sure I got it real clean because I didn't want it to leak when I put it back. So -- what I called getting a gasket off, I'm talking not only getting the gasket off, but making sure it's -- it was totally off. ***So probably it was over an hour getting both of them cleaned up.***

Q. And was there any other product, besides Kutzit, that you used for this process, where you were using Kutzit as you just described it?

A. I don't remember another project -- product.

See Deposition of Bruce Rhyne, Ex. 2, at 321:5-23, 322:3-21.

Mr. Rhyne also told Mr. Petty that he used the Kutzit for one hour per event at school and at Setzer's. See, Doc. 201-13, p. 382. Since Mr. Rhyne used Kutzit to remove gaskets on car parts at each location, it would be a logical inference that the task took the same amount of time at each place. See, Herrick Decl. ¶ 39. Thus, even if Dr. Herrick did not have Mr. Rhyne's interview with Mr. Petty which directly states that Mr. Rhyne used Kutzit for an hour at a time, there would be adequate support for Dr. Herrick's opinion.

Dr. Herrick's Declaration leaves no doubt that he considered both Mr. Rhyne's testimony and his interview with Mr. Petty:

“[A]s for the frequency of Rhyne's Kutzit use at home, from Petty's interview, Rhyne recalled using it on average ~2x/mo. (~1x/mo. For his father's cars and ~1x/mo. for his [own] cars) over the course of this four year timeframe (Interview). Mr. Rhyne testified that he used Kutzit to remove gaskets from valve covers and oil pans. I conservatively estimated that he removed these

gaskets one day in three when he worked on the cars, and he worked on the cars one day per month in calculating his cumulative benzene exposure from this source (0.04 ppm each year for 6 years, total 0.24 ppm-years.”

See Herrick Decl., attached as Exhibit 1, at ¶ 38.

Mr. Rhyne’s deposition testimony establishes how often he worked at Setzer’s dealership as part of the high school work study program. Mr. Rhyne testified:

Q. All right. So you also told us that you worked at Setzer's Oldsmobile and Pontiac; correct?

A. Yes, sir. Buick. Buick. It wasn't Oldsmobile, it was Buick and Pontiac....

Q. And my understanding is, you were there while you were in high school?

A. Yes, sir.

Q. Is that both junior and senior year or just one of them, one of the two?

A. I can recall it was like junior and senior year.

Q. Okay. And how often were you there? Like once a week, twice a week?

A. I believe it's once a week, and instead of going to our normal class that we had in the evenings, we would go straight up to the shop.

See Deposition of Mr. Rhyne, Ex. 2, at 583:10-14,584:10-22.

Q. Okay. I want to ask you some questions about Setzer because you testified just today about using Kutzit at that facility as well. During the school year, what percentage of time did you spend removing gaskets at Setzer versus doing other kinds of work, cleaning parts and whatever else you did with the mechanics?

A. We had about a three or four hour class -- or time that we worked up there with the mechanic. And the majority of that time was cleaning gaskets and parts using the parts washer. So if you're looking at percentage time, in a four hour day, three hours of that -- two and a half, three hours of that would have been working on gaskets or either cleaning bolting.

Q. Okay. So would you be removing gaskets every -- every day that you went to Setzer's?

A. I didn't go every day.

Q. No. No. Every time that you did go, the one time a week that you would go during the school year, would you be removing gaskets every one of those times?

A. It may not be the same kind of gaskets, but it would be gaskets or parts or bolting, or just any kind of part that fit into the -- the sink of the Safety-Kleen. The gaskets, if I go up there one week and I might have a full day of them gaskets. The next week I went up there, it'd be cleaning bolting or carburetors or stuff like that.

Q. Okay. When you would remove gaskets at Setzer, how much of that time would you use Kutzit?

A: Probably an hour.

See. Id., at 660:12-662:3 (emphasis added).

Apart from his direct deposition testament, in his above referenced interview with Mr. Rhyne, Mr. Petty records that Mr. Rhyne claimed to have used Kutzit, “At Setzer: 9 months/year used it ~1x/wk. (interview).” He also notes in the Time/Event column that he used kutzit, “Both at school and at Setzer: ~1hr/event (interview).”

October 5 and 6, 2017 Telephone Log – Interview of Mr. Bruce C. Rhyne

At High School and when on loan to Car Dealership (4: 12, 22)	Container contained ~18 to ~19 oz. (Interview).	Two (2) years (Jr. and Sr. years of high school) (Interview).	At school: 9 months/year used it ~8x/mo. (Interview). At Setzer: 9 months/year used it ~1x/wk. (Interview).	At School: ~1 can/mo. (Interview). At Setzer: ~1/4 can/wk. (Interview)	Both at school and at Setzer: ~1 hr./event (Interview).
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Dr. Herrick then used these figures from Mr. Rhyne’s testimony and Mr. Petty’s interview as the basis of his assumption that Mr. Rhyne used Kutzit while at Setzer’s once per week for an hour at a time. This concept is not difficult to grasp, however, Defendant none the less asserts that “Dr. Herrick assumes that Plaintiff used Kutzit one hour per day, one day per week in 1974-75 - again, without any testimony support from Plaintiff, nor any other evidentiary support.” *See* Defendant’s brief, at 6. The testimonial evidence is abundantly clear, and Mr.

Petty's interview notes have been available to Defendants since October 2017, so for Savogran to assert that there is absolutely no evidentiary support of Dr. Herricks factual assumptions is clearly misleading and its motion should be denied.

Defendant's disagreement with Dr. Herrick's selection of the frequency of Kutzit use at home and length of time using Kutzit at Setzer's is best resolved through cross examination, summation and a standard jury charge that if the jury finds that an assumption is not supported by the evidence, they may disregard that portion of the expert's testimony. Thus, Dr. Herrick's opinion is not speculative, is reliable, and should not be excluded under *Daubert*.

C. Dr. Herrick's conclusion that Mr. Rhyne used Kutzit with benzene as an ingredient through the end of 1974 is proper.

Dr. Herrick reasonably concludes that Mr. Rhyne used the Kutzit formulated with benzene as an ingredient through the end of 1974. Savogran argues that this is not supported by the record because Savogran allegedly stopped manufacturing Kutzit on February 28, 1974. Savogran assumes that it stopped manufacturing Kutzit with benzene as an ingredient on February 28, 1974 because it produced an inventory record indicating that its supply of benzene in a storage tank was depleted on that date. There is no contemporaneous document stating that the company stopped manufacturing Kutzit with benzene as an ingredient in February, 1974. There is no witness who has testified upon personal knowledge that Savogran had only one benzene storage tank or that Savogran did not manufacture Kutzit with benzene as an ingredient after February, 1974. Ironically, while Savogran criticizes Dr. Herrick for assuming that Mr. Rhyne used the benzene-formulated Kutzit through the end of 1974, its own expert Dr. Kerger makes the same conclusion.²

² See Kerger Report, Doc. 202-10, at 14. ("The key findings from my upper-bound inhalation dose assessment for Mr. Rhyne include the following...Upper-bound near-field inhalation exposure concentrations for Mr. Rhyne

Savogran has not established (1) how much benzene-formulated Kutzit remained in its inventory as of February 28, 1974, and (2) how long it took Savogran to sell the Kutzit remaining in inventory as of February 28, 1974. There is no evidence that Savogran ever recalled the Kutzit product from the market.

Savogran sold the Kutzit through distributors and not directly to consumers. Thus, before the Kutzit got to a consumer, it had to leave Savogran's plant outside of Boston, MA to be shipped to a distributor's warehouse. That distributor then held the Kutzit in stock until a retail store placed an order for Kutzit. The distributor then had to ship the Kutzit to a retail store where the product likely sat on the store's shelf for a period of time before being purchased. Moreover, employers, like Setzer's, likely kept Kutzit in stock to avoid delays in production caused by having to purchase the product each time it was used.

Savogran stated that Kutzit was the number one selling benzol paint remover in the south. See, Savogran advertisement, Ex. 3. Thus, it is reasonable to conclude that substantial volumes of Kutzit remained in circulation after February 28, 1974. The Kutzit was already in circulation and remaining in circulation after February, 1974 as pre-existing product combined with new product made its way through the chain of distribution. We see this happen every day. When one goes to a grocery store and buys a jar of pickles, there is typically stamped on the jar a "best if sold by" date. The reason is that manufacturers and retailers realize that product will remain in the chain of distribution and on store shelves for long periods of time after it leaves the manufacturer's facility.

assume use of Kutzit for automotive gasket removal in 1974 at Setzer Buick were also based on empirical benzene emission patterns from historical Kutzit, assuming that the benzene added Kutzit product produced before November of 1973 *was still in use through the end of 1974*" (emphasis added).

Thus, at a minimum, Dr. Herrick's opinion is supported by circumstantial evidence. Standard jury charges state that an entire case can be proven by circumstantial evidence alone. See, e.g. N.C.P.I. Civil 101.45. Circumstantial evidence (in addition to common sense) is therefore sufficient to support Dr. Herrick's opinion on when Mr. Rhyne last used the benzene-formulated Kutzit.

2. Dr. Herrick's Opinion Regarding Plaintiff's Exposure to Benzene From Use of Kutzit at Duke Power is Based Upon Evidence and Not Speculation

Defendant also claims that Dr. Herrick's opinion regarding Mr. Rhyne's frequency of Kutzit use while working at Duke Power is not supported by evidence. As stated above, Dr. Herrick relied upon Mr. Rhyne's deposition testimony as well as Mr. Petty's interview with Mr. Rhyne as a basis for the figures that he used in his exposure assessment. Defendant's grievance with Dr. Herrick's opinions related to Mr. Rhyne's Kutzit use at Duke is that they claim that there is "no evidentiary support" for Dr. Herrick's assertion that Mr. Rhyne used Kutzit to clean and remove gaskets at Duke starting in 1985 and ending in 1998. *See* Defendant's Memo of Law, at 7. Here again, when one actually examines the testimony and record of the case, one sees that there is certainly testimonial and evidentiary support for these calculations. Namely, Mr. Rhyne testified at deposition that:

Q. Did you use Kutzit while you were at Duke Energy?

A. Yes, sir.

Q. But it would have been -- I don't remember using it in the pipe fab shop when I was working in the fab shop at all. Only into the maintenance time frame of my work I remember -- I remember using it.

Q. So when did that start? And I'm sure you've been asked that question before, but I'm just trying to pin it down for myself.

A. That would -- that would have started on -- into the '85 time frame and further on down.

...

Q. Sure. You also told us that you used Kutzit at Duke, not when you were at the pipe shop, but while you were doing maintenance work after '85. Do you recall when after '85 you first used Kutzit at Duke?

A. I -- I can't recall the exact time.

Q. Okay. Do you recall when you last used it at Duke?

A. No, ma'am.

Q. What did you use Kutzit for --

A. It would have been before '98.

See Deposition of Mr. Rhyne, Ex. 2, at 323:2-16, 665:10-24.

Also, later in his deposition, Mr. Rhyne testified that his maintenance work at Duke Power's Catawba plant continued until 1998, when he was promoted to maintenance supervisor. He testified that:

Q. All right. I want to switch gears and talk to you about your work as a maintenance mechanic at Catawba. And you said earlier that that started in 1991. As I understand it, *it went to 1998*, when you became a maintenance supervisor. Is that correct?

A. Yeah

See Deposition of Mr. Rhyne, Ex. 2, at 426:9-16.

Thus, it's clear that Mr. Rhyne's testimony is representative of Dr. Herrick's assumptions that Mr. Rhyne used Kutzit at Duke while performing maintenance tasks starting in 1985 up until he stopped performing maintenance tasks upon his promotion in 1998.

In addition to Mr. Rhyne's testimony, Dr. Herrick also relied upon Mr. Petty's interview with Mr. Rhyne, as previously noted with regard to his assumptions for Mr. Rhyne's use of Kutzit at home and at Setzer's. Mr. Petty's interview notes, provided to Defendants in October of 2017, reflect that Mr. Rhyne used the kutzit product at Duke from 1985 to 1996.

October 5 and 6, 2017 Telephone Log – Interview of Mr. Bruce C. Rhyne

Duke Energy (8:323).	Container contained ~18 to ~19 oz. (Interview).	Used this product here from 1985 to 1998 (Interview)	Overall rate of usage of product was ~2x/mo. from 1985 to 1998 (Interview)	~1 can/mo. (Interview)	~1 hr./event (Interview)
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Therefore, it is clear from both the testimonial evidence as well as the record evidence of the case that Dr. Herrick did not “fabricate” his input parameters with regard to the years that Mr. Rhyne used Kutzit at Duke Power and those numbers are grounded in the facts of the case. The mere fact that Defendant disagrees with Dr. Herrick’s input assumption, and would rather it be some year before 1998, does not mean that Dr. Herrick’s assumptions warrant preclusion under Daubert. Rather, Defendant is free to cross examine Dr. Herrick on the matter at trial.

3. Dr. Herrick’s Reliance Upon The Young (1978) Study For Benzene Exposures At Setzer’s And Duke³ Was Warranted And Scientifically Reliable.

Defendant asserts in its Motion to Exclude that, “[i]n calculating estimated exposures for Plaintiff’s use of Kutit at Setzer’s and Duke Power, Dr. Herrick relied exclusively upon the Young Study to determine the air concentration for benzene from Kutzit.” *See* Defendant’s brief at 8. Further, it asserts that, “Dr. Herrick’s assumption that Plaintiff’s exposures at Setzer’s would have been exactly the same as those reported in Young is pure speculation and without proof to support reliability.” *Id.* Savogran’s argument is wrong for several reasons.

³ Dr. Herrick did not use the Young (1978) air monitoring data to calculate Mr. Rhyne’s exposures when he used the Kutzit on cars at home because this work was performed outdoors.

The Young study was performed and published by government scientists from the CDC, NIOSH, and OSHA and was published in volume 199 of *Science*⁴ in 1978. *See* Doc. 204-5. The Young experiment studied the benzene air concentration resulting from use of a liquid paint remover product, which contained 52% benzene as an ingredient,⁵ to strip paint off a side table while working in a two car garage.⁶ Defendant Savogran acknowledges in its own motion that the paint stripper product tested in the Young study had approximately the same benzene content as the Kutzit product at issue in the instant lawsuit.⁷

As Dr. Herrick notes in his report, the document production from Defendant Savogran shows that the Kutzit product's formula pre-2/28/1974 contained 53-56% benzene,⁸ and the formula post 2/28/1974 showed 25-50% toluene, which resulted in a benzene content of .025-.5% benzene by volume.⁹ Therefore, it's clear that the Young study, which measured the air benzene content of a Kutzit formulation that contained 52% benzene is highly relevant and representative of the types of benzene air concentrations that would result from Mr. Rhyne's use of the same Kutzit paint-stripper product that the records show contained at least 53-56% benzene. This Young (1978) study found a benzene air concentration of 73 to 225 ppm when applied to the end table surface.

⁴ *Science* is one of the most prestigious and respected scientific journals in the world.

⁵ *See* Young, Doc. 204-5, at 1. ("To simulate a typical consumer exposure, paint was removed from an end table with a paint-stripper purchased in a local department store. Analysis of the paint-stripper by gas chromatography revealed a content of 52 percent benzene by volume.")

⁶ *See Id.*, at 1. ("The experiment took place in a two-car garage measuring approximately 8 by 21 by 20 feet.")

⁷ *See* Defendant's Memorandum of Law, at 8. ("when a Kutzit formula containing 52% benzene was used for paint stripping.")

⁸ *See* Herrick Report, Doc. 201-2, at 17 ("During certain years Kutzit was manufactured with benzene as an ingredient. For Example, Kutzit KT-F252-E63 was reported to contain 254 gallons of benzene in a total liquid volume of 456 gallons (approximately 56% benzene by volume). Kutzit K202 contained 256 gallons of Benzazol (90% benzene, 10% acetone), 69 gallons of methanol and 132 gallons of solvent blend, for an approximate benzene content of 53%.

⁹ *See* Herrick report, Doc. 201-2 at 34.

Dr. Herrick opines that the Young (1978) air monitoring data applied to Mr. Rhyne's work at Setzer's mechanic shop, because there was sufficient similarity between the Young study and Mr. Rhyne's use of the Kutzit. At his deposition, Dr. Herrick testified that:

Q. Was the Young study data generated by evaluating indoor or outdoor use, if you know?

A. It -- it was indoor. It was in a -- I think a two-car garage, a two-door garage.

Q. And do we -- do you have any information as to whether Mr. Rhyne's work at Setzer was indoors or outdoors?

A. I'm trying to remember what he said about the -- the workplace at Setzer. You know, it's a mechanic shop. So, you know, I thought it was reasonable to assume that it was that work done indoors.¹⁰

See Dr. Herrick's deposition, Ex. 4, at 358:6-359:17.

In his report, Dr. Herrick calculates the following with regard to Mr. Rhyne's exposures at Setzer's:

The benzene containing paint stripper measures at 52% benzene by Young (1978) generated 5 minute air benzene levels ranging from 73 to 225 ppm (average 130ppm over a 25-minute period). So for the years before 1975, I used the value of 130ppm for the benzene exposure...

See Dr. Herrick's Report, Doc. 201-2, at 34.

Dr. Herrick relied upon his 5 decades experience as an industrial hygienist to make the professional judgment that Mr. Rhyne's near field Kutzit exposures at Setzer's mechanic shop were sufficiently similar to the exposures measured by Young. To calculate Mr. Rhyne's exposures, Dr. Herrick implemented the generally accepted Similar Exposure Group (SEG) industrial hygiene method. Dr. Herrick describes the SEG methods his Declaration, and this description is copied below:

¹⁰ Further, there is no testimony in Mr. Rhyne's deposition that he ever used Kutzit outdoors at Setzer's. *See* Rhyne Deposition, generally.

To calculate Mr. Rhyne's exposures to Kutzit at Setzer's Buick I used the Similar Exposure Group (SEG) method. This method has been adopted by the American Industrial Hygiene Association (AIHA), a leading organization in the field of industrial hygiene. The SEG method stems from the practical reality that for the vast majority of workers and workplaces there is no exposure monitoring data available. In the absence of air monitoring data for a particular person or workplace, the SEG method allows the industrial hygienist to apply sufficiently similar exposure data from air monitoring conducted for a different person at a different place. The AIHA defines a SEG as "A group of workers having the same general exposure profile for an agent because of the similarity and frequency of the task(s) they perform, the similarity of materials and processes with which they work, and the similarity of the way they perform the task(s)".

The underlying concept is that when people do similar tasks, using similar chemicals, under similar conditions, they have similar exposures. A SEG can represent either a single task of short duration or a group of tasks that comprise a full-shift exposure. The SEG method requires the industrial hygienist to use his or her professional judgment and experience to identify a task performed by a worker, the product used by the worker and the environmental conditions that the tasks are performed in. The industrial hygienists should then identify air monitoring data collected for the material at issue (in this case benzene) during the use of a sufficiently similar product under sufficiently similar circumstances. Since it is essentially impossible to find air monitoring data collected under exactly identical circumstances for the exactly identical product, the industrial hygienist must use their professional judgement and experience to identify air monitoring data that adequately, though not perfectly, represent the subject individual's exposures.

Dr. Herrick's analysis leading to the conclusion that the Young (1978) air monitoring data constituted a Similar Exposure Group for Mr. Rhyne is also described in his Declaration and quoted below:

I concluded that the Young (1978) data adequately represented Mr. Rhyne's benzene exposures during the use of Kutzit at Setzer's Buick for the following reasons.

First, I assessed the similarities of the Kutzit product and the paint remover utilized in the Young (1978) study. Kutzit was a liquid paint remover product that contained ~52% benzene (and as much as 58% benzene) when Mr. Rhyne used the product at Setzer's Buick. The Young (1978) study also used a liquid paint remover product that was formulated with 52% benzene. Thus, the Kutzit product and the liquid

paint remover used in the Young (1978) study are virtually identical in their benzene content. This makes the liquid paint remover from the Young (1978) study an excellent candidate for use in the SEG. It is not common to find air monitoring data from a product that is so similar in its benzene content. There is no evidence to indicate that the liquid paint remover used in the Young (1978) study had any other properties that would make the air monitoring results from its use any different from the Kutzit product.

Second, I assessed the similarities of the environments in which Mr. Rhyne used the Kutzit at Setzer's and the environment in which the authors of the Young (1978) study used the liquid paint remover. Setzer's was a garage with four bays and garage doors. The Young (1978) study was performed in a two car garage with overhead garage doors. The authors of the Young (1978) study opened the garage doors every 5 minutes throughout the course of the study so that one of the authors could enter the garage and change the charcoal tubes on the author which applied the liquid paint remover. Thus, outdoor air was frequently permitted to enter the garage. While Setzer's was a larger facility, there is no reason to think that the exposures in the near field, meaning within a 3 foot distance to the point where the product is applied, were different. Generally, room size, air movement and room air exchanges have much less impact on the exposure modeling outcome than do factors than the benzene content of the product and how the product is used.

Third, I assessed how the Young (1978) authors applied the liquid paint remover and compared that to Mr. Rhyne's application of the product. The Young (1978) authors poured the liquid paint remover into a can and then applied the liquid paint remover with a paint brush and removed the paint debris with a scraper.¹¹ This is sufficiently similar to how Mr. Rhyne used the Kutzit as Mr. Rhyne testified that he poured the Kutzit into a plate and then applied the Kutzit to the gasket with a brush and scrapped the gasket material off with a scraper.¹²

It is well established that a simulation need not exactly replicate an event. Rather, courts permit such evidence when it is substantially similar to the Plaintiff's exposures. Dr. Herrick adequately explains why the benzene concentrations reflected in the Young measurements are substantially similar to Mr. Rhyne's Kutzit exposures at Setzer.

¹¹ The Young (1978) article itself describes the use of the paint brush and scraper. Photographs from the study provided by Peter Infante, MPH, Dr.PH, FACE, the Young (1978) investigator who actually applied the liquid paint remover in the study, demonstrate the use of the can to store the liquid paint remover during the brushing operation.

¹² B. Rhyne deposition transcript p. 319-321.

4. Dr. Herrick Did Not Use the Young (1978) Measurements To Calculate Mr. Rhyne's Benzene Exposures from the Use of Kutzit At Home.

When examining Mr. Rhyne's home use of Kutzit, Dr. Herrick noted that Mr. Rhyne did his work at home outdoors. Thus, Dr. Herrick *did not* rely on the Young data at all in calculating air concentration of benzene related to his home exposures to Kutzit. *See* Declaration, at ¶¶ 36 and 37 Rather, he used the ART model with the outdoor ventilation input selection parameter for his estimates of Mr. Rhyne's exposure to Kutzit at home. *Id.* He testified at deposition:

Q:Based on your prior testimony, my understanding of your methodology here is that you used an ART model for the exposure of working on cars for home use, but for Setzer's and Duke, the estimation was based on the Young 1978 study; is that correct?

A. That is correct, yeah.

See Dr. Herrick's deposition, Ex. 4, at 357:24-358:5.

So his estimates of Mr. Rhyne's benzene exposure at home are actually much lower than Young's measured values. He estimated 19.5 ppm benzene for a 90 minute period when he applied the Kutzit to gaskets and scraped off the old gasket at home outdoors. Conversely, the Young study measured an average of 130 ppm over a 25 minute period. *See* Young, Doc 204-5, at 1.

5. Exposure Calculations for Kutzit Use At Duke Power

Finally, with regard to Dr. Herrick's use of the Young air concentration figures for Mr. Rhyne's exposures at Duke power, the same ideological principles apply as for Selzer's. However, the difference with the exposures at Duke Power are that during the relevant time period of 1985 to 1996 the formula benzene content of Kutzit was much lower than the pre-1974 formula used at Setzer's.¹³ Thus, Dr. Herrick states in his report that he took a proportionally

¹³ *See, Herrick report, Doc. 201-2*, at 34.

reduced measure of the Young benzene air concentration figures for use in the Duke Power exposure assessment to reflect the evidence that the benzene concentration of Kutzit during this time period was much less. His report reflects:

The Kutzit Mr. Rhyne used in 1985 and later contained 25 to 50% toluene which was .1 to 1% benzene (so the kutzit was 0.025 to 0.5% benzene). Proportionately then the average benzene air levels from the use of the toluene-containing Kutzit are calculated to average 0.65 ppm, range 0.06 to 1.25 ppm for the 25-minute period.

See Herrick's Report, Doc. 201-2, at 36.

When asked about his assumptions at his deposition, Dr. Herrick testified:

Q. It says, "Duke Energy -- Maintenance."

A. Oh, Duke. Okay. (Witness reviews document.) Oh, no, I didn't use ART for the work that he did there.

Q. How was that calculated?

A. Yeah. I'm looking right now. So I think I took the same approach at Setzer's and also at Duke for his Kutzit use that, since he was Kutzit in 1985, that it was containing between 25 and 50 percent toluene, and I assumed that the toluene was from .1 to 1 percent benzene, so then I did the calculation of the benzene content of the Kutzit when he did that; *and I adjusted the proportion of the airborne concentration from that data that we had from the Young experiment, and -- and, you know, used that proportion and calculated that for the one-hour period when he used the Kutzit with 25 to 50 percent toluene*, his daily exposure was .08 parts per million.

See Herrick Deposition, Ex. 4, at 247:23-248:21

Dr. Herrick explains that the physical properties of benzene and basic rules of chemistry permit him to accurately extrapolate the benzene exposure from the Young study to the benzene exposures from the toluene-formulated Kutzit by adjusting for the relative amount of benzene in the product when formulated with toluene. Dr. Herrick's method is generally acceptable as it is

incorporated into the U.S. EPA's methods for estimating chemical emissions.¹⁴ In his Declaration, Dr. Herrick explains that:

In order to assess the concentration of benzene exposure from use of the Kutzit formulated with toluene I extrapolated the benzene air concentration recorded by Young (1978). Basic laws of chemistry indicate that the in air concentration of a volatile chemical, such as benzene, emitted from a mixture of chemicals is generally proportionate to the concentration of the chemical in the liquid state of the mixture. Raoult's Law holds that the equilibrium vapor pressure that is observed for a compound is proportional to the mole fraction (that is, the concentration) of that compound in solution (Ref US EPA Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Vol II, Chapter 16, p 16.6-7, August 2007). Given the evaporative properties of benzene from a mixture of organics such as in mineral spirits, basic principles of chemistry support extrapolating the in air benzene concentration emitted from a liquid mixture containing approximately 56% benzene to one containing 0.025-0.5% benzene.

Herrick Decl., ¶52, Ex. 1

Ironically, while Savogran criticizes Dr. Herrick for adjusting the air concentration for the benzene-formulated Kutzit down to the toluene-formulated Kutzit, its own expert Dr. Kerger does the same thing.¹⁵

Here again, it is clear that Defendant Savogran merely disagrees with the input parameter assumption of Dr. Herrick's calculation and in so arguing attempts to blur the line between a challenge to the reliability of the scientific methodology rather to a disagreement with factors and foundations used in his calculations. To the extent that Defendant disagrees with our expert's conclusions or disagrees with factual assumptions that were used to decide which products to

¹⁴ See, US EPA Methods for Estimating Air Emissions from Chemical Manufacturing Facilities, Vol II, Chapter 16, p 16.6-7, August 2007

¹⁵ See Kerger Report, Doc. 202-10, at 12. ("The empirically-derived benzene emission rates and dermal transfer efficiency estimates from the historical Kutzit formula were **scaled to the total product benzene content of 0.027% for this formulation (based on 0.099% benzene in the toluene fraction)** and were applied for estimating dermal and near-field inhalation exposure concentrations over time. An adjustment factor of 2.53 was included for the expected larger surface area of gaskets typically used for industrial cooling water piping (average of 8- and 10-inch pipe flange gaskets, 278 cm²) relative to the surface area tested (110 cm²) with automotive valve cover gaskets.")(emphasis added).

input into his scientifically reliable model, Defendants are free to elicit that testimony and engage in cross-examination at trial. *See Kristensen ex rel. Kristensen v. Spotnitz*, No. 3:09-CV-00084, 2011 WL 4380893, at *11 (W.D. Va. Sept. 21, 2011) (“To the extent that Defendants’ experts disagree with Vilseck’s methodology or conclusions, Defendants are free to elicit that testimony.”); (“questions about the proper input parameters are questions about the factual underpinnings of the opinion, which are matters going to weight rather than admissibility.”) *Milward v. Acuity Specialty Products Group, Inc.*, 969 F.Supp.2d 101, 108 (2013), *aff’d sub nom. Milward v. Rust-Oleum Corp.*, 820 F.3d 469 (1st Cir. 2016).

Savogran’s disagreements with Dr. Herrick’s input parameters do not warrant the summary exclusion of Dr. Herrick’s opinions under *Daubert* for the reasons articulated in the jurisprudence outlined *supra* as well as in Plaintiff’s Opposition to Defendants’ Joint Motion to Exclude Dr. Herrick. Defendant’s instant motion is more suited as an outline for their cross-examination at trial. Thus, their Motion should be denied.

CONCLUSION

For the reasons set forth above the Plaintiff respectfully requests that the Court deny The Savogran Company’s Motion to Exclude the Opinions, Testimony and Report of Dr. Robert Herrick.

Respectfully Submitted,

LOCKS LAW FIRM

Dated: April 21, 2020

/s/Andrew J. DuPont
Andrew J. DuPont, *admitted pro hac vice*
LOCKS LAW FIRM
601 Walnut St. Suite 720 East

Philadelphia, PA 19106
Phone: (215) 893-3425
adupont@lockslaw.com

s/ Mark Doby
Mark Doby (NCBN 39637)
WALLACE & GRAHAM, P.A.
525 North Main Street
Salisbury, NC 28144
Tel. No. (704) 633-5244
Fax: (704) 633-9434
mdoby@wallacegraham.com

Appendix of Exhibits:

- Exhibit 1 - Declaration of Robert Herrick
- Exhibit 2 - Pages of Bruce Rhyne Deposition
- Exhibit 3 - Savogran Advertisement
- Exhibit 4 - Pages of Dr. Herrick's Deposition

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true copy of the foregoing was served by e-filing via the Western District of North Carolina's e-Filing Portal to all counsel of record on this date, Friday, April 17, 2020

Respectfully submitted,

/s/ Andrew J. DuPont
ANDREW DUPONT, ESQUIRE
LOCKS LAW FIRM
The Curtis Center, Suite 720 East
601 Walnut Street
Philadelphia, PA 19106
Telephone: 215-893-3425
Fax: 215-893-3444
adupont@lockslaw.com
Admitted Pro Hac Vice

s/ Mark Doby
Mark Doby (NCBN 39637)
WALLACE & GRAHAM, P.A.
525 North Main Street
Salisbury, NC 28144
Tel. No. (704) 633-5244
Fax: (704) 633-9434
mdoby@wallacegraham.com